We claim:

1. An *in vitro* method for identifying a molecule capable of inhibiting the growth or survival of *Helicobacter in vivo*, comprising the steps of:

(a) contacting a parental *Helicobacter* with said molecule in a biological sample;

(b) testing and comparing the response to extracellular pH and the sensitivity to acidity of the parental strain to a strain deficient in UreI and/or of a UreI deficient strain complemented with a plasmid carrying *ureI* in the presence or absence of said active molecule; and

(c) selecting said molecule displaying a differential effect on the parental strain as compared to the UreI deficient strain.

2. The method according to claim 1, wherein the degree of acidity sensitivity is measured in step (b).

3. The method according to claim 1, wherein the molecules are specific to UreI.

4. The method according to claim 1, wherein the *Helicobacter* strain is selected from the group consisting of *Helicobacter pylori, helicobacter felis, Helicobacter heilmannii, Helicobacter mustelae, Helicobacter canis, Helicobacter bilis, Helicobacter hepaticus, Helicobacter muridarum,* and *Helicobacter troguntum*.

5. A molecule capable of inhibiting the growth or survival of *H. pylori in vivo* identified by the method according to claim 1.

6. A method of treating or preventing *H. pylori* infection in humans or animals comprising the step of administering a molecule according to claim 5 together with a pharmaceutically acceptable carrier to a human or animal in need of such treatment.

7. A method of preventing or treating *H. pylori* infection comprising the step of administering a molecule capable of inhibiting the growth or survival of *H. pylori in vivo* to a human or animal in need of such treatment.

8. The method according to claim 7, wherein the molecule is transported inside the *H. pylori* cell due to a high affinity for UreI.

9. The method according to claim 7, wherein the molecule inactivates UreI by inhibiting its properties in *H. pylori* resistance to acidity.

10. The method according to claim 7, wherein the molecule inactivates UreI by inhibiting its properties as a transporter.

11. The method according to claim 7, wherein the molecule inactivates UreI by inhibiting an interaction between UreI and other *H. pylori* proteins.

12. The method according to claim 7, wherein the molecule is capable of intracellular inhibition of urease in *H. pylori*.

13. A molecule capable of inhibiting the growth or survival of *Helicobacter pylori in vivo* said molecule being capable of interacting directly or indirectly with UreI protein or UreI activity or with the corresponding *ureI* gene.

14. A molecule according to claim 13, wherein the molecule is transported inside the *H. pylori* cell due to a high affinity for *ureI*.

15. A molecule according to claims 9 and 13, wherein the molecule inactivates UreI protein by directly binding to *ureI*.

16. A molecule according to claims 10 and 13, wherein the molecule is specifically inhibiting UreI transporter properties either in ammonia export or in urea transport (export or import).

17. A molecule according to claims 11 and 13 wherein the molecule is capable of specifically inhibiting an interaction between UreI and other *H. pylori* proteins.

18. A molecule according to claims 12 and 13 wherein the molecule is capable of intracellular inhibition of *H. pylori* urease.

19. An immunogenic composition comprising all or part of *H. pylori* UreI and a pharmaceutically acceptable carrier.

20. A method of preventing *Helicobacter pylori* infection comprising the step of administering an immunogenic composition according to claim 19.

21. Monoclonal or polyclonal antibodies that specifically recognize all or part of *H. pylori* UreI.

22. A recombinant strain of *H. pylori* comprising a modified *ureI* gene, wherein the product of the gene contributes to the attenuation of the bacteria's ability to survive *in vivo*.

23. A recombinant strain according to claim 22 named *H. pylori* N6-834 mutant deposited at C.N.C.M. on June 28,1999.

24. A plasmid pILL 850, deposited at the C.N.C.M. on June 28.1999 under Accession Number I-2245, able to stably replicate in *H. pylori*, carrying the *ureI* gene and complementing the *H. pylori* N6-834 mutant.